

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appl. No. : TBD
Applicant : J. William Doane et al.
Filed : Herewith
Title : LIQUID CRYSTAL DISPLAY FILMS

Int'l. Application No. : PCT/US2005/003144
Int'l. Filing Date : January 28, 2005

Customer No. : 000,116
Docket No. : 36969US2

INFORMATION DISCLOSURE STATEMENT

Mail Stop PCT
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

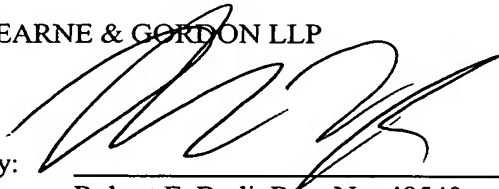
Sir/Madam:

In accordance with Rule 56, applicants are aware of the publications listed in the International Search Report (copy enclosed) and in the enclosed copy of Patent Office Form 1449. In accordance with 37 CFR § 1.98, copies of the U.S. patents and U.S. patent application publications are not enclosed. A copy of each of the remaining publications is enclosed herewith.

If there are any fees resulting from this communication, please charge said fees to Deposit Account No. 16-0820, Order No. 36969US2.

Respectfully submitted,

PEARNE & GORDON LLP

By: 
Robert F. Bodi, Reg. No. 48540

1801 East 9th Street
Suite 1200
Cleveland, Ohio 44114-3108
(216) 579-1700

Date: July 28, 2006

Express Mail Label No. EV740232090US

10/587548

Form PTO-1449 U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE

36969US2
TBD

INFORMATION DISCLOSURE CITATION
BY APPLICANT
(USE SEVERAL SHEETS IF NECESSARY)

Page 1 of 12

APPLICANT:
J. William Doane et al.

FILING DATE:
Herewith

GROUP ART UNIT:
TBD

U.S. PATENT DOCUMENTS

Examiner Initial		Document No.	Date	Name	Class	Subclass	Filing Date
	A	4,510,188	4/1985	Ruggeri			
	B	4,642,250	2/1987	Spector			
	C	4,747,413	5/1988	Bloch			
	D	5,061,553	10/1991	Olsen, Jr.			
	E	5,161,479	11/1992	Mahr			
	F	5,360,503	11/1994	Coffy			
	G	5,376,699	12/1994	Sage			
	H	5,453,863	9/1995	West et al.			
	I	5,981,408	11/1999	Nakagawa et al.			
	J	6,072,619	6/2000	Kiryushev et al.			
	K	6,096,666	8/2000	Jachimowicz et al.			
	L	6,270,783	8/2001	Slavtcheff et al.			

FOREIGN PATENT DOCUMENTS

		Document No.	Date	Country	Class	Subclass	Translation
	M	92/11311	7/1992	WO			
	N	2005/072455	8/2005	WO			
	P	2005/081779	9/2005	WO			

OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)

	Q	<i>Reflective display with photoconductive layer and a bistable reflective cholesteric mixture</i> , Hidefumi Yoshida et al., Journal of the SID 5/3, 1997, pp. 269-274.
	R	<i>Photostable tilted-perpendicular alignment of liquid crystals for light valves</i> , Anna Lackner et al., Proceedings of the SID, Vol. 31/4, 1990, pp. 321-326.

Examiner:	Date Considered
-----------	-----------------

*Examiner: Initial if reference considered, regardless of whether citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

10/587548

Form PTO-1449

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE10/587548
36969US2
TBD
JUL 28 2006INFORMATION DISCLOSURE CITATION
BY APPLICANT
(USE SEVERAL SHEETS IF NECESSARY)

Page 2 of 12

APPLICANT:
J. William Doane et al.FILING DATE:
HerewithGROUP ART UNIT:
TBD

U.S. PATENT DOCUMENTS

Examiner Initial		Document No.	Date	Name	Class	Subclass	Filing Date
	A	6,277,439	8/2001	Painter			
	B	6,603,259	8/2003	Kiryushev et al.			
	C	6,608,438	8/2003	Topelberg et al.			
	D	6,624,565	9/2003	Topelberg			
	E	6,654,080	11/2003	Khan et al.			
	F	6,697,191	2/2004	Kiryushev et al.			
	G	6,727,197	4/2004	Wilson et al.			
	H	6,788,362	9/2004	Stephenson et al.			
	I	2005/0007336	1/2005	Albert et al.			
	J	2003/0202136	10/2003	Stephenson et al.			
	K	2004/0032545	2/2004	Stephenson et al.			
	L	2003/0016329	1/2003	Smith et al.			

FOREIGN PATENT DOCUMENTS

		Document No.	Date	Country	Class	Subclass	Translation
	M						
	N						
	P						

OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)

Q	Transparent phase images in photoactivated liquid crystals, J.S. Margerum et al., Applied Physics Letter, Volume 19, Number 7, October 1, 1971, pp. 216-218.
R	16.3: Development of a flexible electronic display using photographic technology, Stanley W. Stephenson et al., SID 04 Digest, pp. 774-777.

Examiner:

Date Considered

*Examiner: Initial if reference considered, regardless of whether citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

10/587548

IAPL1 Rec'd PCT/PTO 28 JUL 2006

Form PTO-1449	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTN: DOCKET NO. 36969US2	SERIAL NO. TBD
INFORMATION DISCLOSURE CITATION BY APPLICANT (USE SEVERAL SHEETS IF NECESSARY)		APPLICANT: J. William Doane et al.	
		FILING DATE: Herewith	GROUP ART UNIT: TBD
Page 3 of 12			

U.S. PATENT DOCUMENTS

Examiner Initial		Document No.	Date	Name	Class	Subclass	Filing Date
	A	2003/0117548	6/2003	Stephenson			
	B	2003/0034945	2/2003	Mi et al.			
	C	2003/0019575	1/2003	Smith et al.			
	D	2003/0206147	11/2003	Mi et al.			
	E	3,600,060	8/1971	Churchhill			
	F	4,684,771	8/1987	Wuthrich			
	G	4,688,900	8/1987	Doane et al.			
	H	6,271,898	8/2001	Clikeman et al.			
	I	6,423,368	7/2002	Stephenson et al.			
	J	6,459,467	10/2002	Hashimoto et al.			
	K	4,890,902	1/1990	Doane et al.			
	L	6,061,107	5/2000	Yang et al.			

FOREIGN PATENT DOCUMENTS

		Document No.	Date	Country	Class	Subclass	Translation
	M						
	N						
	P						

OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)

	Q	<i>A fully flexible colour display</i> , Peter Slikkerveer et al., SID 04 Digest, pp. 770-773.					
	R	<i>Robust Flexible LCD's with Paintable Technology</i> , Joost P.A. Vogels et al., SID 04 Digest, pp. 767-769.					

Examiner:

Date Considered

*Examiner: Initial if reference considered, regardless of whether citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. 36969US2	SERIAL NO. TBD
INFORMATION DISCLOSURE CITATION BY APPLICANT <i>(USE SEVERAL SHEETS IF NECESSARY)</i>		APPLICANT: J. William Doane et al.	
Page 4 of 12		FILING DATE: Herewith	GROUP ART UNIT: TBD

U.S. PATENT DOCUMENTS

Examiner Initial		Document No.	Date	Name	Class	Subclass	Filing Date
	A	6,359,673	3/2002	Stephenson			
	B	6,423,368	7/2002	Stephenson et al.			
	C	6,433,849	8/2002	Lowe			
	D	6,556,262	4/2003	Stephenson et al.			
	E	6,585,849	7/2003	Smith et al.			
	F	6,618,114	9/2003	Freeman			
	G	3,680,950	8/1972	Haas et al.			
	H	5,437,811	8/1995	Doane et al.			
	I	5,200,845	4/1993	Crooker et al.			
	J	5,644,330	7/1997	Catchpole et al.			
	K	5,748,277	5/1998	Huang et al.			
	L	5,668,614	9/1997	Chien et al.			

FOREIGN PATENT DOCUMENTS

		Document No.	Date	Country	Class	Subclass	Translation
	M						
	N						
	P						

OTHER REFERENCES *(Including Author, Title, Date, Pertinent Pages, Etc.)*

	Q	<i>10.1: Invited paper: What is electronic paper? The expectations,</i> Makoto Omodani, SID 04 Digest, pp. 128-131.
	R	<i>Effect of woven fabric anisotropy on drape behaviour,</i> V. Sidabraitė et al., ISSN 1392-1320, Materials Science, Vol. 9, No. 1, 2003, pp. 111-115.

Examiner: _____	Date Considered _____
-----------------	-----------------------

***Examiner:** Initial if reference considered, regardless of whether citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. 36969US2	SERIAL NO. TBD
INFORMATION DISCLOSURE CITATION BY APPLICANT <i>(USE SEVERAL SHEETS IF NECESSARY)</i>		APPLICANT: J. William Doane et al.	
		FILING DATE: Herewith	GROUP ART UNIT: TBD
Page 5 of 12			

U.S. PATENT DOCUMENTS

Examiner Initial		Document No.	Date	Name	Class	Subclass	Filing Date
	A	5,493,430	2/1996	Lu et al.			
	B	6,359,673	3/2002	Stephenson			
	C	6,377,321	4/2002	Khan et al.			
	D	6,483,563	11/2002	Khan et al.			
	E	6,532,052	3/2003	Khan et al.			
	F	5,847,798	12/1998	Yang et al.			
	G	6,320,563	11/2001	Yang et al.			
	H	6,154,190	11/2000	Yang et al.			
	I	6,133,895	10/2000	Huang			
	J	6,034,752	3/2000	Khan et al.			
	K	2002/0030786	4/2002	Stephenson			
	L	2003/0085380	5/2003	Schumacher et al.			

FOREIGN PATENT DOCUMENTS

		Document No.	Date	Country	Class	Subclass	Translation
	M						
	N						
	P						

OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)

Q	<i>The characterization of the static and dynamic drape of fabrics</i> , G.K. Stylios et al., J. Text. Inst., 1997, 88 Part 1, No. 4, pp. 465-475.
R	<i>Modelling the fused panel for a numerical simulation of drape</i> , Simona Jevsniak et al., Fibers & Textiles in Eastern Europe, January/March 2004, Vol. 12, No. 1, pages 47-52.

Examiner: _____	Date Considered _____
-----------------	-----------------------

***Examiner:** Initial if reference considered, regardless of whether citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE

APPLY. DOCKET NO.

SERIAL NO.

36969US2

TBD

**INFORMATION DISCLOSURE CITATION
BY APPLICANT
(USE SEVERAL SHEETS IF NECESSARY)**

Page 6 of 12

APPLICANT:

J. William Doane et al.

FILING DATE:

Herewith

GROUP ART UNIT:

TBD

U.S. PATENT DOCUMENTS

Examiner Initial		Document No.	Date	Name	Class	Subclass	Filing Date
	A	2003/0063245	4/2003	Bowley et al.			
	B	2005/0083284	4/2005	Huang et al.			
	C	2003/0071791	4/2003	Hanson et al.			
	D	5,691,795	11/1997	Doane et al.			
	E	2003/0155151	8/2003	Hermanns et al.			
	F	6,468,638	10/2002	Jacobsen et al.			
	G	6,316,278	11/2001	Jacobsen et al.			
	H	5,007,872	4/1991	Tang			
	I	4,362,903	12/1982	Eichelberger et al.			
	J	4,896,946	1/1990	Suzuki et al.			
	K	5,889,572	3/1999	Takahashi et al.			
	L	4,948,232	8/1990	Lange			

FOREIGN PATENT DOCUMENTS

		Document No.	Date	Country	Class	Subclass	Translation
	M						
	N						
	P						

OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)

Q	<i>Mechanics of elastic performance of textile materials</i> , Chauncey Chu et al., Textile Research Journal, August 1950, pp. 539-548.
R	<i>The dependence of fabric drape on bending and shear stiffness</i> , G.E. Cusick, J. Textile Institute 36, 11, 1965, pp. T597-T-607.

Examiner:

Date Considered

***Examiner:** Initial if reference considered, regardless of whether citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE CITATION BY APPLICANT (USE SEVERAL SHEETS IF NECESSARY) Page 7 of 12	ATTY. DOCKET NO. 36969US2	SERIAL NO. TBD
	APPLICANT: J. William Doane et al.	
	FILING DATE: Herewith	GROUP ART UNIT: TBD

U.S. PATENT DOCUMENTS

Examiner Initial		Document No.	Date	Name	Class	Subclass	Filing Date
	A	5,751,257	5/1998	Sutherland			
	B	6,710,760	3/2004	Johnson et al.			
	C	6,253,190	6/2001	Sutherland			
	D	6,269,342	7/2001	Brick et al.			
	E	6,657,620	12/2003	Oishi et al.			
	F	5,734,155	3/1998	Rostoker			
	G	2003/0169221	9/2003	Stephenson et al.			
	H	2002/0186182	12/2002	Stephenson et al.			
	I	2003/0222139	12/2003	Stephenson et al.			
	J	2004/0080477	4/2004	Capurso et al.			
	K	2003/0160912	8/2003	Stephenson			
	L	6,307,605	10/2001	Bailey			

FOREIGN PATENT DOCUMENTS

		Document No.	Date	Country	Class	Subclass	Translation
	M						
	N						
	P						

OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)

Q	Liquid crystal dispersions, Paul S. Drzaic, World Scientific, Series on Liquid Crystals, Vol. 1, pp. xi-xv, 1995.
R	6.3: Plastic VGA reflective cholesteric LCDs with dynamic drive, G.M. Podojil et al., SID proceedings, 1998, pp. 51-54.

Examiner:	Date Considered
-----------	-----------------

*Examiner: Initial if reference considered, regardless of whether citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

10/587548
 IP11 Rec'd PCT/PTO 28 JUL 2006

Form PTO-1449	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. 36969US2	SERIAL NO. TBD
INFORMATION DISCLOSURE CITATION BY APPLICANT (USE SEVERAL SHEETS IF NECESSARY)		APPLICANT: J. William Doane et al.	
Page 8 of 12		FILING DATE: Herewith	GROUP ART UNIT: TBD

U.S. PATENT DOCUMENTS

Examiner Initial		Document No.	Date	Name	Class	Subclass	Filing Date
	A	6,902,454	6/2005	Petruchik			
	B	6,655,788	12/2003	Freeman			
	C	6,224,964	5/2001	Kawai et al.			
	D	6,268,839	7/2001	Yang et al.			
	E	2002/0030776	3/2002	Khan et al.			
	F	6,452,590	9/2002	Awamoto et al.			
	G	6,628,256	9/2003	Nishimura			
	H	2001/0015712	8/2001	Hashimoto			
	I	2003/0184569	10/2003	Koga et al.			
	J	5,815,136	9/1998	Ikeda et al.			
	K	6,278,429	8/2001	Ruth et al.			
	L	5,530,457	6/1996	Helgeson			

FOREIGN PATENT DOCUMENTS

		Document No.	Date	Country	Class	Subclass	Translation
	M						
	N						
	P						

OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)

	Q	<i>13.1: Invited Paper: Reflective color display using cholesteric liquid crystals</i> , K. Hashimoto et al., SID 98 Digest, pp. 897-900.
	R	<i>Black and white photo-addressable electronic paper using encapsulated cholester liquid crystal and organic photoconductor</i> , T. Kakinuma et al., IDW 2002, pp. 1345-1348.

Examiner:

Date Considered

*Examiner: Initial if reference considered, regardless of whether citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. 36969US2	SERIAL NO. TBD
INFORMATION DISCLOSURE CITATION BY APPLICANT (USE SEVERAL SHEETS IF NECESSARY)		APPLICANT: J. William Doane et al.	
		FILING DATE: Herewith	GROUP ART UNIT: TBD
Page 9 of 12			

U.S. PATENT DOCUMENTS

Examiner Initial	A	Document No.	Date	Name	Class	Subclass	Filing Date
	A	6,268,841	7/2001	Cairns et al.			
	B	2003/0011549	1/2003	Murahashi et al.			
	C	5,172,108	12/1992	Wakabayashi et al.			
	D	2003/0031845	2/2003	Umeya et al.			
	E	6,864,435	3/2005	Hermanns et al.			
	F	5,996,897	12/1999	Prancz			
	G	2005/0162606	12/2004	Doane et al.			
	H	5,625,477	4/1997	Wu et al.			
	I	2005/0001797	2/2004	Miller, IV et al.			
	J	5,636,044	6/1997	Yuan et al.			
	K	7,009,666	3/2006	Khan et al.			
	L	6,819,310	11/2004	Huang et al.			

FOREIGN PATENT DOCUMENTS

		Document No.	Date	Country	Class	Subclass	Translation
	M						
	N						
	P						

OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)

Q	Characterization of "Peas in a Pod", a novel idea for electronic paper, S. Maeda et al., IDW 2002, pp. 1353-1356.
R	Holographic polymer-dispersed liquid crystals (H-PDLCs), T.J. Bunning et al., Annu. Rev. Mater. Sci 2000, 30:83-115, pp. 83-115.

Examiner:	Date Considered
-----------	-----------------

*Examiner: Initial if reference considered, regardless of whether citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

10/587548
 10/587548
 28 JUL 2006

Form PTO-1449	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	APPLICANT: J. William Doane et al.	SERIAL NO. TBD
INFORMATION DISCLOSURE CITATION BY APPLICANT (USE SEVERAL SHEETS IF NECESSARY)		FILING DATE: Herewith	GROUP ART UNIT: TBD
Page 10 of 12			

U.S. PATENT DOCUMENTS

Examiner Initial		Document No.	Date	Name	Class	Subclass	Filing Date
	A	6,850,217	2/2005	Huang et al.			
	B						
	C						
	D						
	E						
	F						
	G						
	H						
	I						

FOREIGN PATENT DOCUMENTS

		Document No.	Date	Country	Class	Subclass	Translation
	J						
	K						
	L						

OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)

M	Reflective multicolor display using cholesteric liquid crystals, M. Okada et al., Proc, SID 97 Digest, pp. 1019-1022.
N	Multiple color high resolution reflective cholesteric liquid crystal display, D. Davis et al., Proc IDRC (242) 1997.
P	Full color (4096 Colors) reflective cholesteric crystal display, X. Huang et al., Proceedings of Asia Display 98, pp. 883-886 (1998).

Examiner:	Date Considered
-----------	-----------------

*Examiner: Initial if reference considered, regardless of whether citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. 36969US2	SERIAL NO. TBD
INFORMATION DISCLOSURE CITATION BY APPLICANT <i>(USE SEVERAL SHEETS IF NECESSARY)</i> Page 11 of 12		APPLICANT: J. William Doane et al.	
		FILING DATE: Herewith	GROUP ART UNIT: TBD

U.S. PATENT DOCUMENTS

Examiner Initial		Document No.	Date	Name	Class	Subclass	Filing Date
	A						
	B						
	C						
	D						
	E						
	F						
	G						
	H						
	I						

FOREIGN PATENT DOCUMENTS

		Document No.	Date	Country	Class	Subclass	Translation
	J						
	K						
	L						

OTHER REFERENCES *(Including Author, Title, Date, Pertinent Pages, Etc.)*

M	Jing-Jou Tang et al., <i>A 30-V Row/Column Driver for PSCT LCD Using High-Voltage BiMOS Process</i> , Online Article, dated 1999.
N	http://www.us.semiconductors.philips.com/pip/PCF8578.html , LCD/row/column driver for dot matrix graphic displays, printed July 8, 2003, pp. 1-3.
P	40CH Segment/Driver for Dot Matrix LCD, KS0065B, Samsung Electronics, 12 pages.

Examiner:	Date Considered
-----------	-----------------

*Examiner: Initial if reference considered, regardless of whether citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

U.S. PATENT DOCUMENTS

FOREIGN PATENT DOCUMENTS	
--------------------------	--

OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)

Examiner:	Date Considered
-----------	-----------------

*Examiner: Initial if reference considered, regardless of whether citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.